High-Mu Triode—Sharp-Cutoff Pentode

Pentode Unit Has Two Independent Control Grids

9-PIN MINIATURE TYPE

With Heater Having Controlled Warm-Up Time

GENERAL DATA

Electrical:

Heater Characteristics and Ratings *(Design-Maximum Values):*

Voltage (AC or DC)	6.3[a]	6.3 ± 0.6	volts
Current	0.600 ± 0.040	0.600[b]	amp
Warm-up time (Average)	11	–	sec
Peak heater-cathode voltage:			
Heater negative with respect to cathode	200 max.		volts
Heater positive with respect to cathode	200[c] max.		volts

Direct Interelectrode Capacitances:[d]

Triode Unit:		
Grid to plate	2.2	μμf
Grid to cathode & internal shield, and heater	2.8	μμf
Plate to cathode & internal shield, and heater	2.2	μμf
Pentode Unit:		
Grid No.1 to plate	0.1 max.	μμf
Grid No.1 to cathode & internal shield, grid No.3, grid No.2, and heater	9.5	μμf
Grid No.1 to grid No.3	0.5	μμf
Grid No.3 to plate	2.2	μμf
Grid No.3 to cathode & internal shield, plate, grid No.2, grid No.1, and heater	7.0.	μμf

Characteristics, Class A_1 Amplifier:

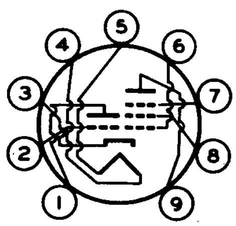
	Triode Unit	*Pentode Unit*	
Plate Supply Voltage	200	150	volts
Grid-No.3 Supply Voltage	–	0	volts
Grid-No.2 Supply Voltage	–	100	volts
Grid-No.1 Supply Voltage	−2	0	volts
Cathode Resistor	–	180	ohms
Amplification Factor	70	–	
Plate Resistance (Approx.)	17500	100000	ohms
Transconductance, Grid No.1 to Plate	4000	4400	μmhos
Transconductance, Grid No.3 to Plate	–	600	μmhos

Plate Current	4	4	ma
Grid-No.2 Current	–	2.8	ma
Grid-No.1 Supply Voltage (Approx.) for plate μa =			
10	-5	–	volts
20	–	-4	volts
Grid-No.3 Supply Voltage (Approx.) for plate μa = 20	–	-7	volts

Mechanical:

Operating Position	Any
Type of Cathode	Coated Unipotential
Maximum Overall Length	2-5/8"
Maximum Seated Length	2-3/8"
Length, Base Seat to Bulb Top (Excluding tip)	2" ± 3/32"
Diameter	0.750" to 0.875"
Dimensional Outline	See *General Section*
Bulb	T6-1/2
Base	Small-Button Noval 9-Pin (JEDEC No.E9-1)
Basing Designation for BOTTOM VIEW	9PV

Pin 1 – Triode Plate
Pin 2 – Triode Grid
Pin 3 – Cathode, Internal Shield
Pin 4 – Heater
Pin 5 – Heater



Pin 6 – Pentode Grid No.1
Pin 7 – Pentode Grid No.3
Pin 8 – Pentode Grid No.2
Pin 9 – Pentode Plate

GATED AGC AMPLIFIER & NOISE INVERTER

Pentode Unit

For operation in a 525-line, 30-frame system[e]

Maximum Ratings, *Design-Maximum Values:*

PLATE VOLTAGE	300 max.	volts
PEAK POSITIVE-PULSE PLATE VOLTAGE[f]	600 max.	volts
GRID-No.3 (CONTROL-GRID) VOLTAGE:		
Negative-bias value	100 max.	volts
Positive-bias value	0 max.	volts
GRID-No.2 (SCREEN-GRID) SUPPLY VOLTAGE	300 max.	volts
GRID-No.2 VOLTAGE	See *Grid-No.2 Input Rating Chart* at front of Receiving Tube Section	
GRID-No.1 (CONTROL-GRID) VOLTAGE:		
Negative-bias value	50 max.	volts
Positive-bias value	0 max.	volts
GRID-No.2 INPUT:		
For grid-No.2 voltages up to 150 volts	1.1 max.	watts

For grid-No.2 voltages between 150 volts and 300 volts.	See *Grid-No.2 Input Rating Chart* at front of Receiving Tube Section	
PLATE DISSIPATION.	2 max.	watts

Maximum Circuit Values:

Grid-No.3-Circuit Resistance	0.68 max.	megohm
Grid-No.1-Circuit Resistance:		
For fixed-bias operation	0.5 max.	megohm
For cathode-bias operation	1 max.	megohm

AMPLIFIER — Class A_1

Triode Unit

Maximum Ratings, *Design-Maximum Values:*

PLATE VOLTAGE.	300 max.	volts
GRID VOLTAGE:		
Negative-bias value.	50 max.	volts
Positive-bias value.	0 max.	volts
PLATE DISSIPATION.	1.1 max.	watts

Maximum Circuit Values:

Grid-Circuit Resistance:		
For fixed-bias operation	0.25 max.	megohm
For cathode-bias operation	1 max.	megohm

[a] At heater amperes = 0.600.

[b] At heater volts = 6.3.

[c] The dc component must not exceed 100 volts.

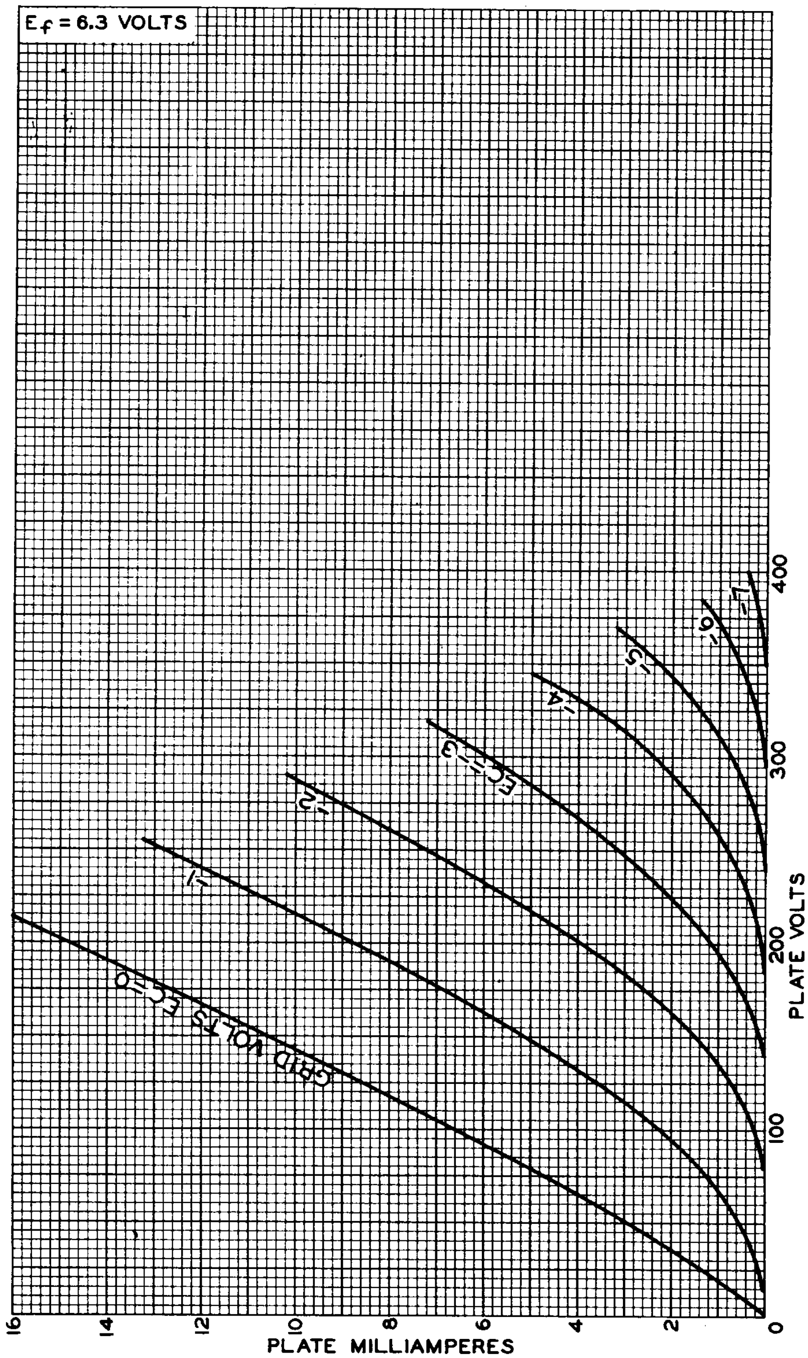
[d] Without external shield.

[e] As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations," Federal Communications Commision.

[f] This rating is applicable when the duration of the voltage pulse does not exceed 15 per cent of one horizontal scanning cycle. In a 525-line, 30-frame system, 15 per cent of one horizontal scanning cycle is 10 microseconds.

6KA8

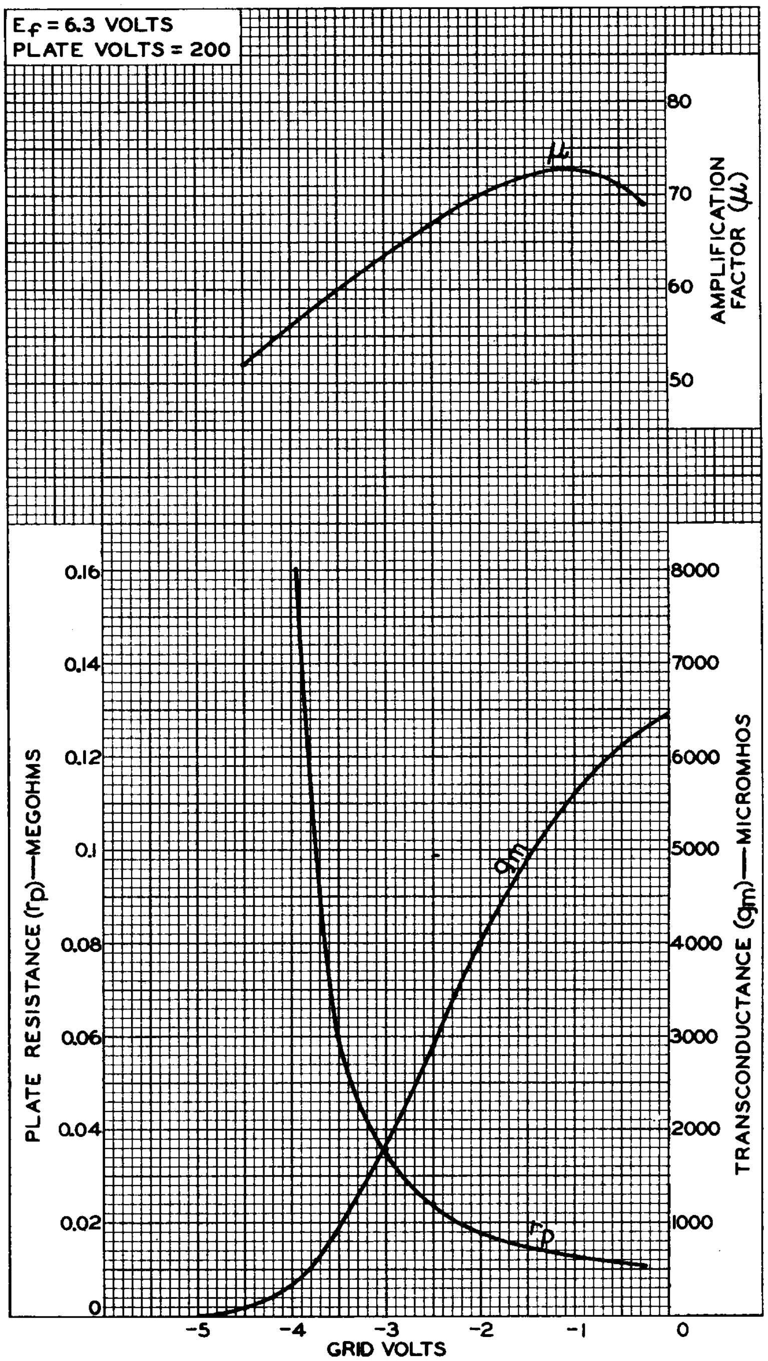
AVERAGE PLATE CHARACTERISTICS
Triode Unit



92CM-8644

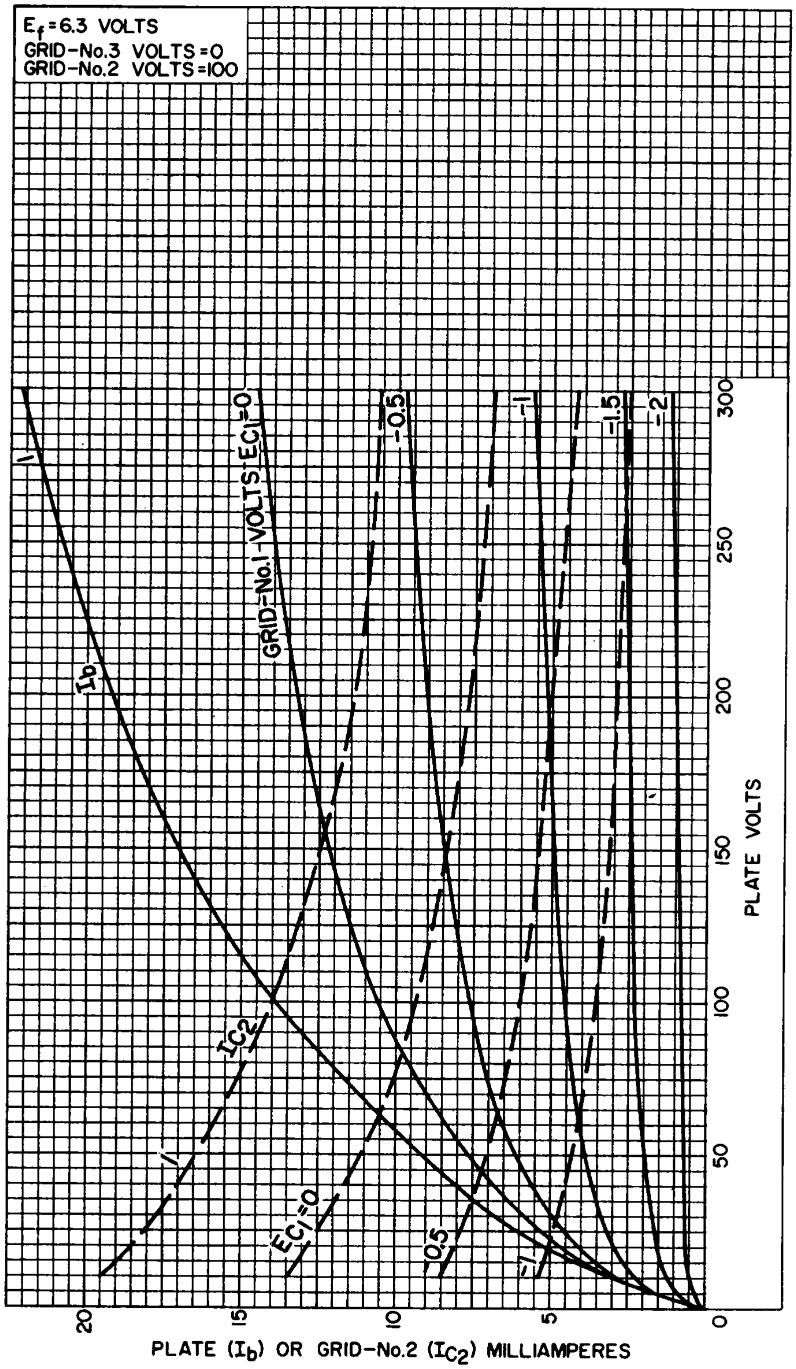
RADIO CORPORATION OF AMERICA
Electron Tube Division
Harrison, N. J.

AVERAGE CHARACTERISTICS
Triode Unit



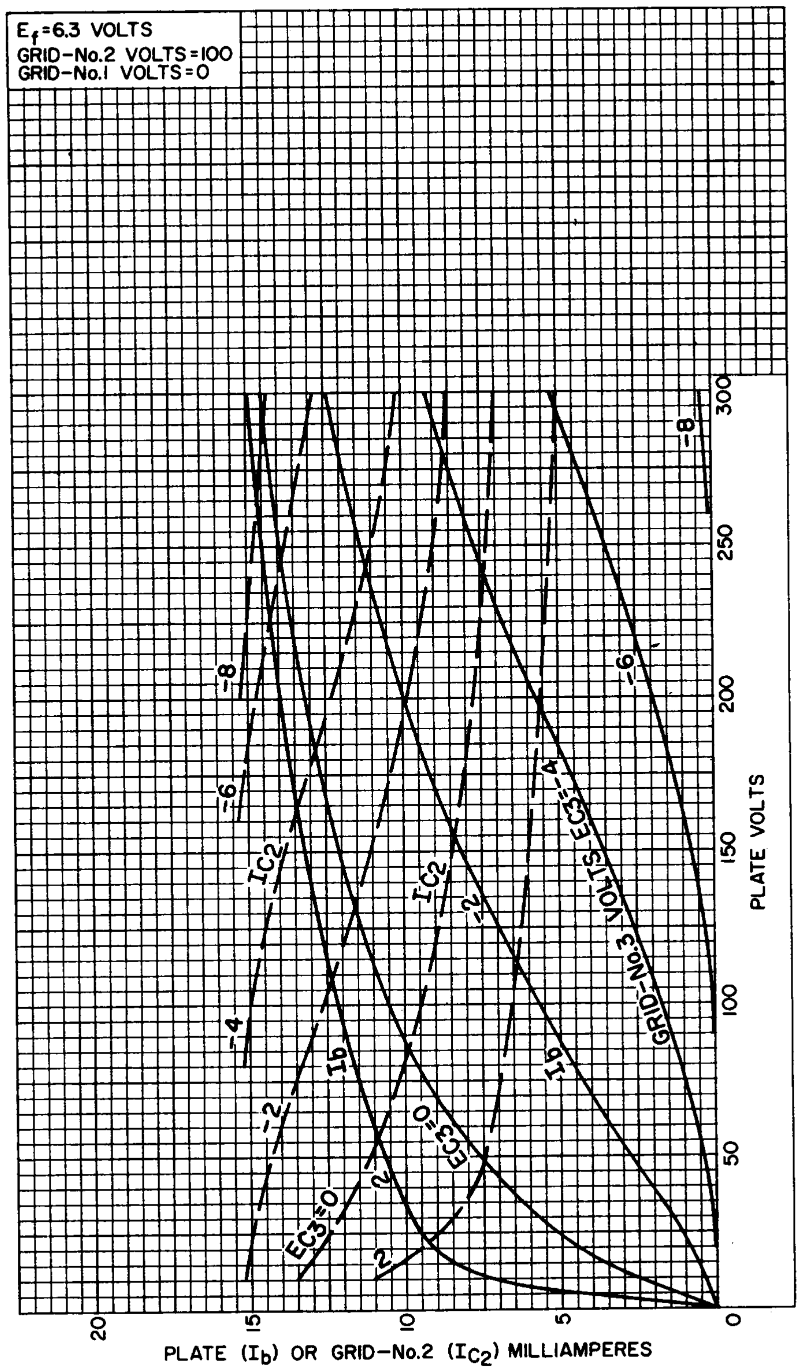
92CM-8647

AVERAGE CHARACTERISTICS
Pentode Unit



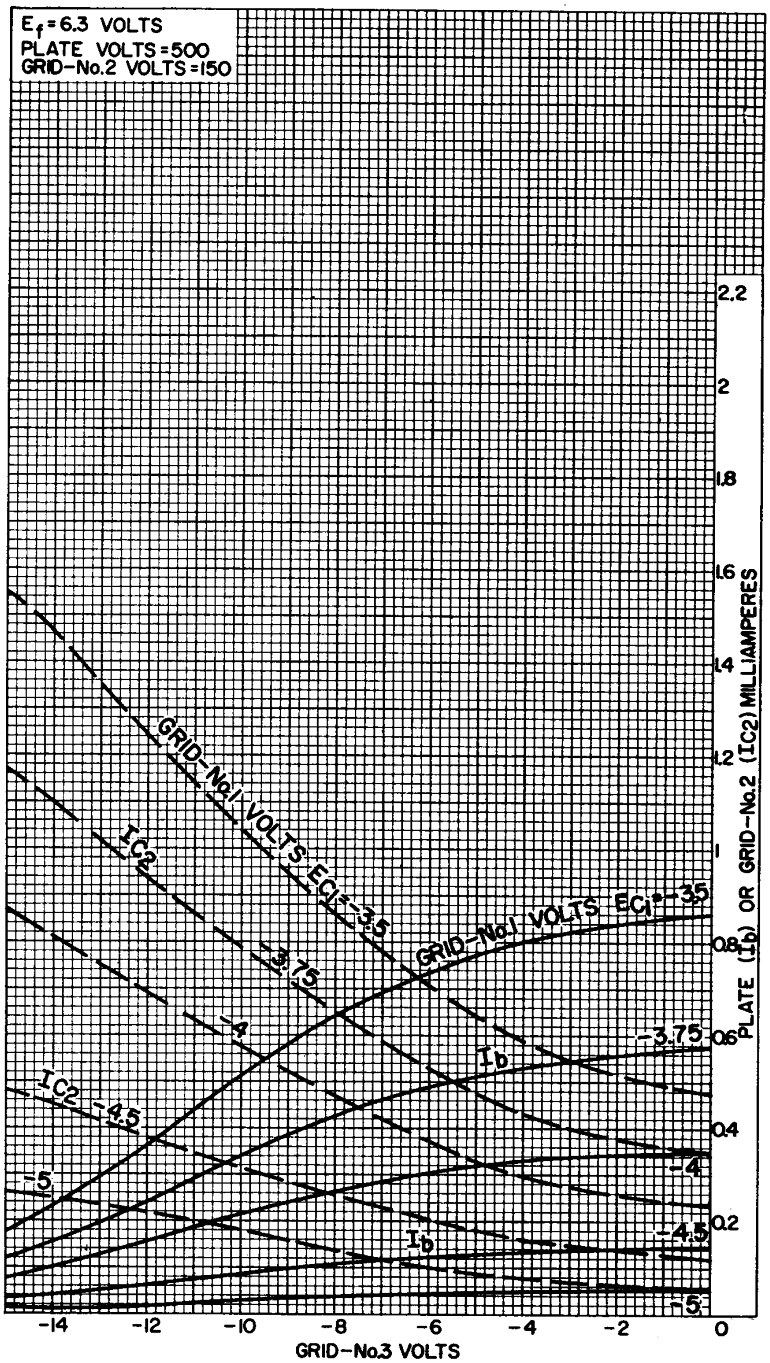
92CM-11594

AVERAGE CHARACTERISTICS
Pentode Unit



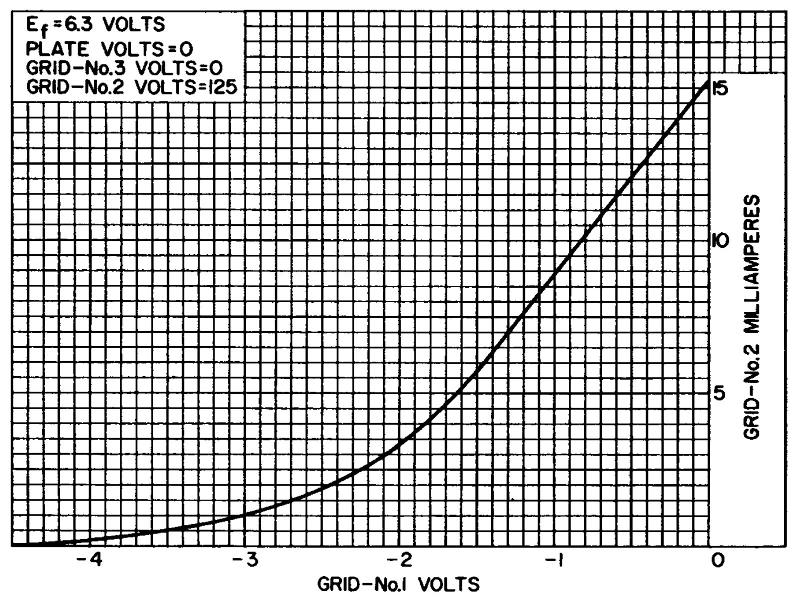
92CM-11606

AVERAGE CHARACTERISTICS
Pentode Unit

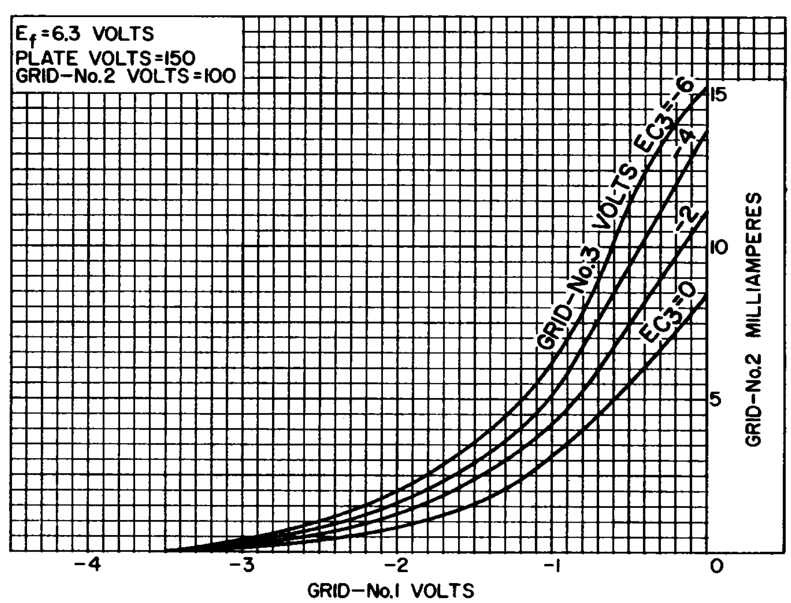


92CM-11600

AVERAGE CHARACTERISTICS
Pentode Unit

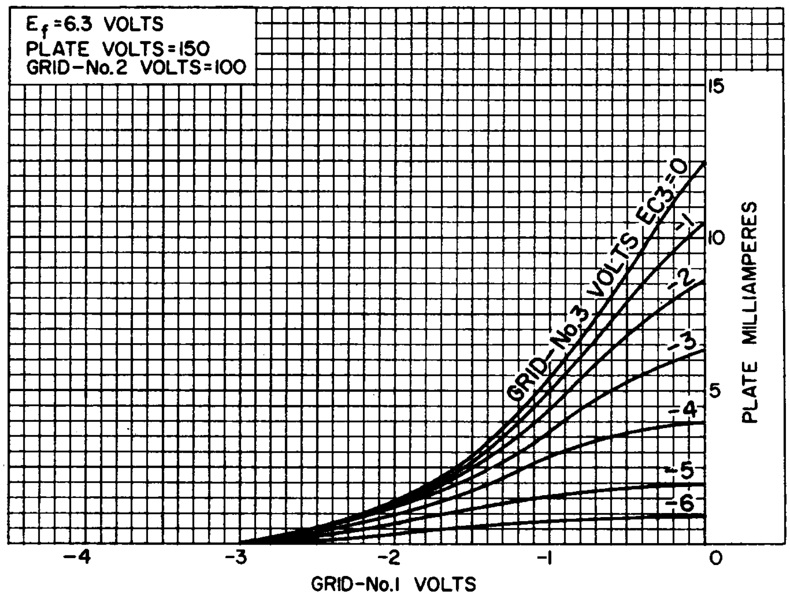


92CS-11603



92CS-11596

AVERAGE CHARACTERISTICS
Pentode Unit



92CS-11614